

### **Listing of Claims**

1. (Currently Amended) An apparatus allowing for tax-optimized, managed investment portfolios, the apparatus comprising:  
an investor account database storing account data for a plurality of financial portfolios[[:]] wherein the assets of each financial portfolio are allocated to at least one investment style ~~manager, each investment style manager maintaining investment style data;~~  
a data pre-processor for receiving (i) historical transactions associated with each financial portfolio, and (ii) proposed transactions based on the at least one investment style; and  
a portfolio optimizer operative to optimize ~~a financial portfolio for~~ after-tax returns for each financial portfolio, factoring in risk, return, and total tax costs associated with execution of the proposed transactions and the historical transactions associated with each financial portfolio.  
~~on the investment style data corresponding to the investment style managers associated with the financial portfolio and the account data in the investor account database.~~
2. (Currently Amended) The apparatus of claim 1 wherein the investment style ~~data is~~ represents a model portfolio.
3. (Currently Amended) The apparatus of claim 1 wherein the investment style ~~data~~ allows for creation of a model portfolio.
4. (Original) The apparatus of claim 2 wherein the model portfolio data comprises a plurality of securities and their respective weights.
5. (Currently Amended) The apparatus of claim 2 wherein the portfolio optimizer is operative to minimize tracking error from the model portfolios of the at least one investment style ~~managers~~ associated with the financial portfolio, balancing tracking error, tax costs, and transaction costs.
6. (Currently Amended) The apparatus of claim 1 wherein the portfolio optimizer includes means for modeling a tax code applicable to the client associated with each financial portfolio.

7. (Currently Amended) The apparatus of claim 6 wherein the means for modeling a tax code is operative to provide ~~the~~ incremental tax costs resulting from the proposed transactions ~~a given set of trades~~.

8. (Currently Amended) An apparatus allowing for tax-optimized, managed investment portfolios, the apparatus comprising:

an investor account database storing account data for a plurality of financial portfolios[[]] wherein the assets of each financial portfolio are allocated between at least two asset classes[[]] and wherein each asset class has associated therewith at least one investment style ~~manager~~, each investment style ~~manager~~ maintaining representing a model portfolio;

a data pre-processor for receiving (i) historical transactions associated with each financial portfolio, and (ii) proposed transactions generated to mirror the model portfolios; and

a portfolio optimizer operative to optimize a financial portfolio across the at least two asset classes for after-tax returns, factoring in risk, return, and total tax costs, based on the proposed transactions and the historical transactions associated with each financial portfolio. ~~model portfolio data corresponding to the investment style managers associated with the financial portfolio and the account data in the investor account database.~~

9. (Currently Amended) The apparatus of claim 8 wherein the portfolio optimizer is operative to minimize tracking error from the model portfolios of the investment styles ~~managers~~ associated with the financial portfolio, balancing tracking error, tax costs, and transaction costs.

10. (Currently Amended) The apparatus of claim 8 wherein the portfolio optimizer is operative to minimize tracking error from the model portfolios of the investment styles ~~managers~~ associated with the financial portfolio, balancing tracking error, tax costs and tax preferences corresponding to the financial portfolio.

11. (Original) The apparatus of claim 8 wherein the model portfolio data comprises a plurality of securities and their respective weights.

12. (Currently Amended) The apparatus of claim 8 wherein the investor account database further stores portfolio optimization settings in association with corresponding financial portfolios, and wherein the portfolio optimizer further considers ~~is operative to optimize a financial portfolio across asset classes for after tax returns, factoring in risk, return, and total tax costs, based on the model portfolio data corresponding to the investment style managers associated with the financial portfolio and the account data and~~ the portfolio optimization settings ~~in investor account database~~ when optimizing the financial portfolio.

13. (Currently Amended) The apparatus of claim 8 wherein the investor account database further stores client preference data in association with corresponding financial portfolios, and wherein the portfolio optimizer is further considers ~~operative to optimize a financial portfolio across asset classes for after tax returns, factoring in risk, return, and tax costs, based on the model portfolio data corresponding to the investment style managers associated with the financial portfolio and the account data and~~ the client preference data ~~in investor account database~~ when optimizing the financial portfolio.

14. (Withdrawn) The apparatus of claim 13 wherein the portfolio optimizer is operative to screen the model portfolio data for restricted securities identified in the client preference data.

15. (Withdrawn) The apparatus of claim 14 wherein the portfolio optimizer is operative to replace restricted securities with an alternate security.

16. (Withdrawn) The apparatus of claim 15 wherein the alternate security is the most similar security to the restricted security in relation to tracking error relative to the model portfolio and excess return associated with the restricted security.

17. (Withdrawn) The apparatus of claim 8 wherein the portfolio optimizer is operative to identify and prevent wash sales within the financial portfolio.

18. (Withdrawn) The apparatus of claim 8 wherein the portfolio optimizer is operative to receive external transactions data relating to financial events external to the financial portfolio,

and wherein the portfolio optimizer is operative to identify and prevent wash sales resulting from optimization, across the financial portfolio and identified external transactions.

19. (Currently Amended) The apparatus of claim 8 wherein the portfolio optimizer is further operative to receive ~~external transactions~~ data relating to financial events external to the financial portfolio, and wherein the portfolio optimizer integrates the external transactions data into the optimization of the financial portfolio.

20. (Withdrawn) The apparatus of claim 8 wherein the portfolio optimizer is operative to calculate an optimal solution for achieving a requested withdrawal from the financial portfolio.

21. (Withdrawn) The apparatus of claim 8 wherein the portfolio optimizer is operative to calculate an optimal solution for integrating a contribution to the financial portfolio.

22. (Withdrawn) The apparatus of claim 8 wherein the portfolio optimizer is operative to constrain the optimization to a targeted asset allocation range.

23. (Withdrawn) The apparatus of claim 8 wherein the portfolio optimizer is operative to constrain the allocations between investment style managers within an asset class.

24. (Withdrawn) The apparatus of claim 8 further comprising an investment style data processor operative to receive investment style data from a plurality of investment style managers, the investment style managers submitting investment style data associated with varying degrees of participation; and wherein the investment style data processor is operative to process the investment style data to provide a uniform set of inputs to the portfolio optimizer.

25. (Original) The apparatus of claim 8 wherein the apparatus is operative to transmit calculated adjustments for a financial portfolio to an accounting system for trade execution.

26. (Currently Amended) A method facilitating the maintenance of tax-optimized, investment portfolios, the method comprising the steps of

receiving investment style data ~~from~~ representative of a plurality of investment styles managers;

receiving account data relating to a financial portfolio, wherein the assets of the financial portfolio are allocated to at least one of the plurality of investment styles manager;

receiving (i) historical transactions associated with each financial portfolio, and (ii) proposed transactions based on the at least one investment style data; and,

optimizing the financial portfolio for after-tax returns, balancing risk, return and total tax costs, based on the proposed transactions and the historical transactions associated with each financial portfolio ~~on the investment style data from the investment styles manager(s) associated with the financial portfolio and the account data associated with the financial account.~~

27. (Currently Amended) The method of claim 26 wherein the investment style data for each investment style ~~manager includes data characterizing~~ represents a model portfolio.

28. (Currently Amended) The method of claim 27 wherein the optimizing step further comprises ~~the step of~~ minimizing tracking error from the model portfolios of the investment styles ~~managers~~ associated with the financial portfolio, ~~balancing tracking error, transaction and tax costs.~~

29. (Withdrawn) The method of claim 26 further comprising the step of before the optimizing step, processing the investment style and account data to screen for restricted securities.

30. (Withdrawn) The method of claim 29 further comprising the step of  
selecting an alternate security for any restricted security associated with a model portfolio found in the processing step.

31. (Withdrawn) The method of claim 30 wherein the alternate security is the most similar security to the restricted security in relation to tracking error relative to the model portfolio and excess return associated with the restricted security.

32. (Withdrawn) The method of claim 26 further comprising the step of

processing the investment style and account data to screen for potential wash sales.

33. (Withdrawn) The method of claim 32 further comprising the step of  
applying a constraint mechanism to any security associated with a potential wash sale to  
eliminate the potential for a wash sale.

34. (Currently Amended) The method of claim 26 ~~wherein the account data includes client data relating to financial events outside the financial portfolio and wherein the method further comprises~~ comprising incorporating data relating to financial events outside the financial portfolio ~~the steps of~~ when calculating the net tax position of the client associated with the financial portfolio.

35. (Currently Amended) A method facilitating the management of tax-optimized financial portfolios allocated between at least two investment styles ~~managers~~, the method comprising the steps of:

maintaining a financial portfolio, wherein the assets of the financial portfolio are allocated to at least two investment styles ~~managers~~, ~~wherein the investment style managers each having~~ maintain a model portfolio associated therewith;

~~receiving model portfolio data from the investment style managers associated with the financial portfolio;~~

receiving (i) historical transactions associated with the financial portfolio, and (ii) proposed transactions generated to mirror the model portfolios; and

calculating adjustments to the financial portfolio, balancing risk, return and total tax costs ~~the effect of taxes~~, to minimize tracking error from the model portfolios ~~of the investment style managers associated with the financial portfolio and to optimize after tax returns.~~

36. (New) The apparatus of claim 1 wherein the portfolio optimizer optimizes allocations of trades within each financial portfolio by constructing and solving a mathematical representation of an objective function bound by constraints, wherein the constraints represent the account data associated with each investment portfolio.

37. (New) The apparatus of claim 1 wherein the portfolio optimizer is further configured to modify the proposed transactions based on the optimized allocations.

38. (New) The apparatus of claim 8 wherein the portfolio optimizer optimizes allocations of trades within each financial portfolio by constructing and solving a mathematical representation of an objective function bound by constraints, wherein the constraints represent account data associated with each investment portfolio.

39. (New) The method of claim 26 wherein optimization of the financial portfolio further comprises constructing and solving a mathematical representation of an objective function bound by constraints, wherein the constraints represent the account data associated with each investment portfolio.

40. (New) The method of claim 35 wherein the adjustments to the financial portfolio comprises constructing and solving a mathematical representation of an objective function bound by constraints, wherein the constraints represent account data associated with each investment portfolio.